

What is claimed is:

1. An optical connector with a shutter comprising:

a body having an insertion and extraction port into and from which a plug serving as a counter optical connector is to be inserted and extracted, and an insertion space for said plug, said insertion space communicating with said insertion and extraction port;

an optical device which is disposed in said body to be opposed to an end portion of said plug that is inserted into said insertion space; and

a void space which is additionally formed in said plug insertion space to be expanded to a lateral side from said insertion and extraction port, and

further comprising:

a support shaft which is placed in said vacant space; and

a shutter which is attached to said support shaft to be openingly and closingly movable about said support shaft between a closing position where said shutter closes said insertion and extraction port in a form crossing said insertion space, and an opening position where said shutter is retracted into said vacant space to open said insertion and extraction port, said shutter being always elastically urged toward said closing position.

2. An optical connector with a shutter according to claim

1, wherein a plate spring which rides over an outer peripheral

face of said plug that is inserted into said insertion space, to be in elastic contact with said plug is disposed in an intermediate portion in a longitudinal direction of said insertion space.

5           3. An optical connector with a shutter according to claim 1, wherein an axial direction of said support shaft coincides with a thickness direction of said body.

10           4. An optical connector with a shutter according to claim 1, wherein, in said insertion space and said vacant space, a portion including an opening and closing moving path of said shutter is opened in an upper face of said body.

15           5. An optical connector with a shutter according to claim 4, wherein, in said insertion space and said vacant space, an opening port that is opened in said upper face of said body is closed by a cover mounted on said body.

          6. An optical connector with a shutter according to claim 2, wherein said plate spring is configured by a spring piece which is formed by cutting and raising a part of a cover.

20           7. An optical connector with a shutter according to claim 6, wherein said spring piece is formed by cutting and inwardly raising a side wall of said cover.

25           8. An optical connector with a shutter according to claim 6, wherein said spring piece is formed by cutting and inwardly raising an upper wall of said cover into a cantilever-like shape.

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9. An optical connector with a shutter according to claim 6, wherein said spring piece is formed by cutting and inwardly raising an upper wall of said cover into a shape of a valley-like doubly-supported beam, and a rib-like arcuate ridge elongating in a width direction is disposed in a bottom of the valley.

10. An optical connector with a shutter according to claim 1, wherein said shutter is colored, and the coloration of said shutter is observable through said insertion and extraction port.

11. An optical connector with a shutter according to claim 2, wherein said plate spring has a function of serving as a grounding contact.

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